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10/056,050	01/28/2002	Shmuel Cabilly	IVGN 309.3 CIP	1920
52059 7590 12/17/2009 LIFE TECHNOLOGIES CORPORATION C/O INTELLEVATE P.O. BOX 52050 MINNEAPOLIS, MN 55402			EXAMINER BARTON, JEFFREY THOMAS	
			ART UNIT 1795	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/056,050	Applicant(s) CABILLY ET AL.	
	Examiner Jeffrey T. Barton	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-14, 18-21, 71, 73, 75, 77, 79-82, 85-91, 94-101 and 103-115 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 77 is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-14, 19-21, 71, 75, 79-82, 85-91, 94-101 and 103-115 is/are rejected.
- 7) ☒ Claim(s) 18 and 73 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 14 September 2009 does not place the application in condition for allowance.

Status of Rejections Pending Since the Office Action of 12 March 2009

2. All rejections are maintained.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 115 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is insufficient antecedent basis for "the continuous electrophoretic separation medium" as recited in the claim. The claim is treated as though "the electrophoresis gel matrix" were recited instead.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci (US 3,715,295) in view of Elson et al. (US 3,888,759)

Regarding claim 1, Tocci discloses a disposable electrophoresis cassette (Figures 1-6) comprising an enclosed chamber having top (5), bottom (4), side (2) and end (3) walls as claimed; wherein the bottom wall is contiguous and the chamber comprises three regions as claimed (e.g. narrow central section as the third region with

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first and second regions corresponding to the portions of gel 12 and electrodes 8 positioned above the semisolid buffer in vessels 6 and 7 as illustrated in Figures 3 and 4); wherein the chamber comprises an electrophoresis area (e.g. central section); an electrophoresis gel matrix 12 (Figures; Column 2, lines 55-57; Column 3, lines 8-18; Column 4, lines 57-60); wherein the electrophoresis gel matrix substantially occupies the first, second, and third regions (Figures 3 and 4) and an anode and cathode disposed in respective first and second regions, in contact with the gel matrix as claimed. (Foil electrodes 8, in contact with medium 12 as shown in Figures 3 and 4) Note that in this reading, the first and second regions are not considered to include the volume occupied by the semisolid buffer within respective vessels 6 and 7. Since the claim recites that the chamber "comprises" the first, second, and third regions, the claim is considered to be open to the presence of regions other than those explicitly recited.

Regarding claim 2, Tocci discloses all regions being sealed before and during electrophoresis. (e.g. Figures 4 and 5 - electrode 8 folds out, then is held in position for electrophoresis by the lid after sealing)

Regarding claims 3, 4, 62, 105, and 106, Tocci discloses metal foil electrodes. (Column 6, lines 10-11) Any metal can be electrochemically ionized under certain conditions, including electrophoresis, given a high enough voltage and choice of/lack of solvent, etc.

Regarding claim 71, Tocci discloses a method of using his cassette comprising loading samples and applying an electrical field. (Column 3, lines 54-67)

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Regarding claims 85 and 86, the portions above either vessel 6 or 7 of Tocci, which are occupied by medium 12 and a portion of electrode 8 (Figures 3 and 4) correspond to the instant first or second region, and either could clearly contain the anode or cathode.

Regarding claims 87 and 91, the electrodes 8, as shown in Figures 3 and 4 are considered to be embedded in medium 12. Alternatively, in the embodiment of Figure 6, the knife edge electrodes are taught as being held in holes in the sheet 12, which also is considered to meet the limitations of the claim. (Column 5, lines 5-8)

Regarding claims 94-100, the top wall of Tocci is sealed to the side walls and end walls during operation, thus sealing the first and second regions (Figures 3-5; Column 4, lines 55-57; Column 5, lines 1-4 describe how electrode tabs are folded out such that the lid will be placed on the chamber while allowing current to be applied to the cassette), and the bottom wall has several planar sections, which can each be described as "flat". (Figure 3)

Regarding claim 115, Tocci discloses that the separation medium includes buffer. (Column 2, lines 58-60; Column 3, lines 8-18) In order for the device to function, the ions present in the buffer must be sufficient for electrophoretic separation to begin upon application of a field, which meets the limitations of the claim.

Tocci does not explicitly disclose a unit comprising apertures for sample loading or wells disposed below the apertures. Specific to claim 101, Tocci also does not disclose the instant comb.

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Elson et al disclose a gel cassette (Figure 1) wherein samples are applied into wells formed in the gel through apertures (21) provided in the cover of the gel cassette. (Abstract; Column 2, lines 25-36) The templates taught by Elson et al are positioned in a carrier, 24, and the assembly thus inserted into the cassette reads on the comb of claim 101. (Figure 1; Column 3, lines 5-14)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the unit of Tocci by providing a row of apertures in the cover for sample loading, as taught by Elson et al, because Elson et al teaches the advantages of this design, in that it allows for a range of sample volumes and allows samples to be applied without opening the instrument. (Column 1, lines 36-38; Column 4, lines 5-14) In using the apertures taught by Elson et al, it would of course have been obvious to use the template carrier (24) and templates (20) taught by Elson et al, which are positioned in the gel matrix via the apertures, upon gelation. (Column 2, lines 27-36; Column 3, lines 5-14)

9. Claims 5, 6, 75, 88, 107, and 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci and Elson et al as applied to claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 above, and further in view of Pace. (US 4,908,112)

Tocci and Elson et al are relied upon for the reasons given above in addressing claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115.

Neither Tocci nor Elson et al explicitly require any specific metal for the electrodes, although Tocci suggests nichrome or platinum. (Column 3, lines 46-47)

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Pace discloses an electrophoretic device with copper or silver electrodes.

(Column 7, lines 36-39)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the device of Tocci by using copper electrodes, as taught by Pace, because it would reduce the cost of manufacture compared to the more standard platinum or gold electrodes for a disposable electrophoresis unit.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the device of Tocci by using silver electrodes, as taught by Pace, because it would reduce the cost of manufacture compared to the more standard platinum or gold electrodes for a disposable electrophoresis unit, while still being less reactive than most metal alternatives. (e.g. Cu)

Furthermore, given that Tocci does not specifically require any metal, but only suggests nichrome or platinum, it would have been a matter of choice to a skilled artisan to select an appropriate electrode material from those known in the art of electrophoresis, such as copper or silver.

Specific to claims 75 and 88, if copper or silver is used for the anode, metal ions will preferentially form rather than water hydrolysis products and will be present in the gel matrix, meeting the limitations of these claims. This is a property of these metals that is recognized by applicant. (Specification; Page 10, lines 7-13)

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10. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci and Elson et al as applied to claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 above, and further in view of Eibl et al. (US 3,951,776)

Tocci and Elson et al disclose an electrophoresis unit and method as described above in addressing claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115.

Neither Tocci nor Elson et al explicitly require any specific metal for the electrodes, although Tocci suggests nichrome or platinum. (Column 3, lines 46-47)

Eibl et al disclose an electrophoretic device with aluminum electrodes. (Column 3, lines 30-37)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Tocci by using aluminum electrodes, as taught by Eibl et al, because it would reduce the cost of manufacture compared to the more standard platinum or gold electrodes for a disposable electrophoresis unit.

Furthermore, given that Tocci does not specifically require any metal, but only suggests nichrome or platinum, it would have been a matter of choice to a skilled artisan to select an appropriate electrode material from those known in the art of electrophoresis, such as aluminum.

Further addressing claims 7 and 9, although Eibl does not specifically address the oxygen-absorbing abilities of aluminum, this is an innate property of the metal and would allow the gel to remain substantially oxygen-free, even if water electrolysis did occur.

11. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci and Elson et al as applied to claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 above, and further in view of Flesher et al. (US 4,773,984)

Tocci and Elson et al disclose an electrophoresis unit and method as described above in addressing claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115.

Neither Tocci nor Elson et al explicitly require any specific metal for the electrodes.

Flesher et al disclose an electrophoretic device with palladium electrodes.
(Column 5, lines 29-34)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Tocci by using palladium electrodes, as taught by Flesher et al, because they are highly resistive to corrosion.

Furthermore, given that Tocci did not specifically require any metal, it would be a matter of choice to a skilled artisan to select an appropriate electrode material from those known in the art of electrophoresis, such as palladium.

Further addressing claims 19 and 21, although Flesher et al do not specifically address the hydrogen-absorbing abilities of palladium, this is an innate property of the metal and would allow the gel to remain substantially hydrogen-free, even if water electrolysis did occur.

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12. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci and Elson et al as applied to claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 above, and further in view of Day. (GB 2284484)

Tocci and Elson et al disclose a combined electrophoresis unit and method as described above in addressing claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 above.

Specific to claim 13, Elson et al also disclose these sites being disposed in a row. (Figure 1)

Neither Tocci nor Elson et al explicitly disclose spacing the apertures to conform with intervals between tips on a loader (Claim 12), or apertures arranged in a stagger format. (Claim 14)

Day discloses an electrophoresis gel with sample wells spaced to match the spacing of standard multichannel pipettes. (Page 5, line 24 - Page 6, line 23) He also discloses staggered arrangement of wells. (e.g. Figure 4)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the combination of Tocci and Elson et al by spacing the sample application slots taught by Elson to match the 9 mm spacing of multichannel pipettes, as taught by Day, because Day teaches the economy of time and labor in sample loading that such an arrangement allows. (Page 5, line 30 - Page 6, line 4)

It would also have been obvious to one having ordinary skill in that art to provide multiple, staggered rows of sample wells, as taught by Day, because Day teaches that

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this arrangement allows a much more efficient use of the gel space in that many more samples can be run in a single gel. (Page 5, line 10 - Page 6, line 4)

13. Claims 81, 82, 89, 90, 103, 104, 110, and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci and Elson et al as applied to claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 above, and further in view of Monthony et al. (US 3,948,743)

Tocci and Elson et al disclose a combined electrophoresis unit and method as described above in addressing claims 1-4, 71, 85-87, 91, 94-101, 105, 106, and 115 above.

Neither Tocci nor Elson et al explicitly disclose any particular buffer solution.

Monthony et al disclose electrophoresis methods, one of which involves using a Tris/Glycine buffer for separations at pH 8.9. (Table in Column 4, Example 1)

It would also have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the system of Tocci by using the buffer system disclosed by Monthony et al, because Tocci left this choice up to the skilled artisan using his invention, and one having ordinary skill would be able to select an appropriate buffer for a given separation from those known in the prior art. In addition, Monthony teach that electrophoresis of human serum on a gel using this buffer resulted in "sharply separated bands" (Column 6, lines 33-35), which would clearly have been desirable to a skilled artisan.

Applicant did not invent Tris/Glycine and the other buffers claimed here. A property not seen in the prior art of record is claimed here, but the discovery of a new property of a known material does not necessarily patentably distinguish the claim. See *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999) and *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). There are no structural distinctions between the claimed invention and the prior art as combined above.

Specific to claims 81, 89, and 93, since Applicant teaches that the Tris/Glycine buffer is a composition that meets the limitations of these claims (Note claim 80, for example), this combination meets all positively recited limitations of these claims.

14. Claims 79 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci, Elson et al, and Pace as applied to claims 5, 6, 75, 88, 107, and 108 above, and further in view of Monthony et al. (US 3,948,743)

Tocci, Elson et al, and Pace disclose a combined electrophoresis unit and method as described above in addressing claims 5, 6, 75, 88, 107, and 108 above.

None among Tocci, Elson et al, and Pace explicitly disclose the claimed electrolyte.

Monthony et al disclose electrophoresis methods, one of which involves using a Tris/Glycine buffer for separations at pH 8.9. (Table in Column 4, Example 1)

It would also have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the system of Tocci by using the buffer system

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disclosed by Monthony et al, because Tocci left this choice up to the skilled artisan using his invention, and one having ordinary skill would be able to select an appropriate buffer for a given separation from those known in the prior art. In addition, Monthony teach that electrophoresis of human serum on a gel using this buffer resulted in “sharply separated bands” (Column 6, lines 33-35), which would clearly have been desirable to a skilled artisan.

Applicant did not invent Tris/Glycine and the other buffers claimed here. A property not seen in the prior art of record is claimed here, but the discovery of a new property of a known material does not necessarily patentably distinguish the claim. See *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999) and *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). There are no structural distinctions between the claimed invention and the prior art as combined above.

Specific to claim 79, since Applicant teaches that the Tris/Glycine buffer is a composition that meets the limitations of these claims (Note claim 80, for example), this combination meets all positively recited limitations of these claims.

15. Claim 109 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci, Elson et al, and Monthony et al as applied to claims 81, 82, 89, 90, 103, 104, 110, and 111 above, and further in view of Eibl et al. (US 3,951,776)

Tocci, Elson et al, and Monthony et al disclose a cassette and method as described above in addressing claims 81, 82, 89, 90, 103, 104, 110, and 111.

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None among Tocci, Elson et al, or Monthony et al explicitly require any specific metal for the electrodes, although Tocci suggests nichrome or platinum. (Column 3, lines 46-47)

Eibl et al disclose an electrophoretic device with aluminum electrodes. (Column 3, lines 30-37)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Tocci by using aluminum electrodes, as taught by Eibl et al, because it would reduce the cost of manufacture compared to the more standard platinum or gold electrodes for a disposable electrophoresis unit.

Furthermore, given that Tocci does not specifically require any metal, but only suggests nichrome or platinum, it would have been a matter of choice to a skilled artisan to select an appropriate electrode material from those known in the art of electrophoresis, such as aluminum.

Although Eibl does not specifically address the oxygen-absorbing abilities of aluminum, this is an innate property of the metal and would allow the gel to remain substantially oxygen-free, even if water electrolysis did occur.

16. Claims 112-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tocci, Elson et al, and Monthony et al as applied to claims 81, 82, 89, 90, 103, 104, 110, and 111 above, and further in view of Day et al. (GB 2284484)

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Tocci, Elson et al, and Monthony et al disclose a cassette and method as described above in addressing claims 81, 82, 89, 90, 103, 104, 110, and 111.

Specific to claim 113, Elson et al also disclose these sites being disposed in a row. (Figure 1)

None among Tocci, Elson et al, or Monthony et al explicitly disclose spacing the apertures to conform with intervals between tips on a loader, or apertures arranged in a stagger format.

Day discloses an electrophoresis gel with sample wells spaced to match the spacing of standard multichannel pipettes. (Page 5, line 24 - Page 6, line 23) He also discloses staggered arrangement of wells. (e.g. Figure 4)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the combination of Tocci and Elson et al by spacing the sample application slots taught by Elson to match the 9 mm spacing of multichannel pipettes, as taught by Day, because Day teaches the economy of time and labor in sample loading that such an arrangement allows. (Page 5, line 30 - Page 6, line 4)

It would also have been obvious to one having ordinary skill in that art to provide multiple, staggered rows of sample wells, as taught by Day, because Day teaches that this arrangement allows a much more efficient use of the gel space in that many more samples can be run in a single gel. (Page 5, line 10 - Page 6, line 4)

Allowable Subject Matter

17. Claim 77 is allowed.

18. Claims 18 and 73 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

19. Applicant's arguments filed 14 September 2009 have been fully considered but they are not persuasive.

Applicant argues that Tocci does not teach or suggest the electrodes being located within the first or second regions as claimed. The Examiner respectfully disagrees. Figures 3, 4, and 6 clearly show the electrodes being within the first and second regions. The limitations are clearly taught.

Applicant further argues that Tocci does not teach or suggest that the electrodes are in contact with the electrophoresis gel matrix. Again, the Examiner respectfully disagrees. Figures 3, 4, and 6 clearly show the electrodes being in contact with the matrix 12 as claimed. Applicant cites a portion of the specification, applying emphasis to a portion stating that the "medium is in electrical contact with the semi-solid buffer". This fails to show that the electrodes are not in contact with the medium 12. See figures 3, 4, and 6 which clearly illustrate this contact, and Column 5, lines 5-8, which states ". . . a pair of wedge-shaped knife edge electrodes 13 and 14 are held in holes 14 and 15 in

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the sheet 12 . . .". Awkward numbering aside, clearly the electrodes are in contact with and embedded in medium 12. Applicant's arguments are therefore not persuasive, and Applicant's assertion that "Nowhere in Tocci appears to contemplate contacting the electrodes with the support medium" is quite clearly mistaken.

Applicant relies upon these arguments in arguing against all other previous rejections, which are not persuasive for the reasons given above. All rejections are deemed proper, and are maintained.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey T. Barton whose telephone number is (571)272-1307. The examiner can normally be reached on M-F 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey T. Barton/
Primary Examiner, Art Unit 1795
14 December 2009